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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/796,301

03/10/2004

Jun Hamakita

K06-167785M/TBS

9114

21254

7590

10/19/2006

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EXAMINER

LUM VANNUCCI, LEE SIN YEE

ART UNIT

PAPER NUMBER

3611

DATE MAILED: 10/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/796,301

Applicant(s)

HAMAKITA ET AL.

Examiner

Lee Lum

Art Unit

3611

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 July 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) all is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. An Amendment was filed 7/25/06.
2. Applicant's foreign priority is acknowledged (Examiner apologizes for overlooking this matter).

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 14 and 15 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The amendment of "a grease having a worked penetration of which is not more than 200", is unsupported by the Spec. On p15, it is described that "the worked penetration is not less than 200", which is not equivalent. Therefore, this language constitutes new matter.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 3611

A. Claims 1-10 and 12-15 (*14 as best understood*) are rejected under 35 U.S.C. 103(a) as being unpatentable over Okaniwa et al 6444621, in view of Oka et al 6782771, and Alexander 4822505.

Okaniwa discloses an electric power steering device (c1, ln 16-18; “pinion assist type electric power steering”) comprising

Grease (c2, 13-14; “grease composition”) having a worked penetration of less than 300 (or no more than 200, *as best understood*), (c6; “Table 1”, item 11).

The reference does not disclose details of the steering system, while Oka shows a well-known system, as depicted in at least fig 1, including

Motor 6 and shaft 60,

a male member as including a spline shaft (unidentified in fig 1; housed within female member 82), and female member 82, jointed together for transmitting rotation of the motor to reduction gear/deceleration mechanism 7, the latter including worm wheel 71,

an O-ring nonexistent between the members, and,

wherein the grease is charged between the members (as is well-known).

It would have been obvious to one with ordinary skill in the art at the time the invention was made to include this configuration, as shown in Oka, to provide details of a well-known power steering system, and therefore define the scope of the invention. It is clear that various, functionally equivalent configurations of power steering systems exist, of which include well-known components such as “male and female joint members”.

Neither Okaniwa nor Oka discloses the grease as including a base oil having a kinetic viscosity of 1000-5000 mm-sq/s at 40 deg C. Alexander teaches this feature in c1, ln 56-63, where the viscosity may range between “5-10,000 cSt at 40 deg C”.

It would have been obvious to one with ordinary skill in the art at the time the invention was made to include this formulation, as shown in Alexander, to provide a particular grease for a specific application, thus increasing applicability.

B. **Claim 11** is rejected under 35 U.S.C. 103(a) as being unpatentable over Okaniwa in view of Oka and Alexander, and in further view of Hasegawa et al 5550190.

The previous references do not disclose a wheel of the speed reduction mechanism as made of at least polybutylene terephthalate (PBT). Hasegawa shows a synthetic resin composite including this element in c11, ln 1-4, to form automotive components (c11, ln 44-46) requiring characteristics such as "strength...heat resistance, grease resistance" (c11, ln 34-37).

It would have been obvious to one with ordinary skill in the art at the time the invention was made to include this feature, as shown in Hasegawa, to provide desired characteristics for components of the steering system, thus maximize proper function and longevity. However, it is clear that other, functionally equivalent materials may be employed for these objectives.

5. RESPONSE TO REMARKS

Examiner has reiterated her rejections using Okaniwa in combination with Oka and Alexander, etc, as provided above.

As discussed above, Okaniwa discloses the respective elements including "a base oil with a kinetic viscosity of 1000-5000 mm-sq/s at 40 deg C, as well within the disclosed range of "5-10,000 cSt at 40 deg C", c1, ln 61-63. The reference is combined with Alexander to teach a "kinetic viscosity" range of 1000-5000 mm-sq/s at 40 deg C", as recited in Claims 1+. This range is clearly shown within Alexander's provision of "5-10,000 cSt at 40 deg C"; it is not required that the exact range of "1000-5000 mm-sq/s" be disclosed for a proper rejection.

Applicant continues his/her arguments re Alexander, on p9, by stating "However, the...oil in Alexander does not provide enhanced load-carrying capability...[but] is provided by the additives in the composition." This is true, as exemplified in c3, ln 53+. But equally evident is the fact that (at least) Claim 1 is broad such that the only specifications recited of the present "grease" are ranges for "kinetic viscosity" and "worked penetration". No other specificity as to the composition of the present "grease" is provided, and to distinguish it from that disclosed in the combination of references.

Therefore, it is reasonable to combine Okaniwa with Alexander to obviate these limitations. It is also noted Alexander discloses load-carrying characteristics in c3, ln 53-57, and versatility in c4, ln 7-10; "the multipurpose grease...has a variety of uses, and may be suitably employed in any application requiring a grease...". In this way, Alexander is properly applied.

Lastly, the amendment in Claim 14 of "a grease having a worked penetration of which is not more than 200" raises a 112/1st issue, as provided above.

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

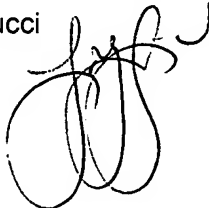
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

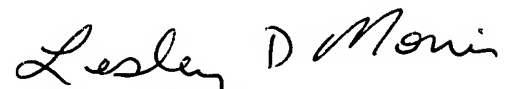
7. Communication with the Examiner/USPTO

Any inquiry concerning this communication, or others, should be directed to Ms. Lum at 571 272 6649, M-F, 9-5. If she can't be reached, her supervisor, Ms. Lesley Morris, may be reached at 571 272 6651. Our fax number is 571 273 8300.

Information re the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) System as follows: for unpublished apps - private PAIR only, for published apps - private or public PAIR. For more info on PAIR - <http://pair-direct.uspto.gov>. For more info on private PAIR - call the Electronic Business Center at 866 217 9197.

Ms. Lee Lum-Vannucci
Examiner
10/12/06




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